

REMARKS:

EXTENSION OF TIME

A petition for a three-month extension of time and the
5 requisite fee of \$930 are submitted herewith.

CLAIM REJECTIONS:

35 USC 102

Claims 1-36 were rejected under U.S.C. §102(b), as being
anticipated by U.S. Patent 5,726,073 to Zhang. In rejecting
10 the claims, the Examiner states that Zhang discloses a two-
dimensional scanner having a base (100) outer frame (50)
rotatably attached to the base; an inner part (24) rotatably
attached to the outer frame 50; a first set of comb fingers
(86) attached to the inner part; and a second set of comb
15 fingers attached to the outer frame.

The Applicants respectfully traverse the rejection. The
Applicants note that Zhang discloses in his Fig. 1 an
apparatus wherein a stage (24) is attached to an inner frame
(50) by elongated springs 70, 72, 74, 76 (See col. 5, lines
20 51-61). With regard to these springs, Zhang specifically
teaches, at col. 5, line 61 to col. 6, line 3 that

*"These y-axis spring beams are laterally flexible to allow the
frame 24 to move along the x-axis with respect to frame 50.
Preferably these spring mounting beams have high aspect ratios so
25 that they are flexible in the x direction, but are substantially
inflexible in the z direction, which is perpendicular to the plane
of the device, so that motion of stage frame 24 with respect to
the stage frame 50 is constrained to the x-y plane of the first
frame 24 along the x-axis. Motion of the central stage 16 follows
30 that of stage 24."*

The applicants submit that because the springs 70, 72, 74, 76 are "substantially inflexible in the z-direction," the configuration disclosed by Zhang does not allow for the stage (24) to rotate with respect to the inner frame (50).

5 In addition, Zhang describes the inner frame (50) as being attached to an outer frame (100) by eight suspension beams (114)-(117) and (120)-(123). The Applicants submit that the configuration of the eight suspension beams shown by Zhang in Fig. 1 effectively prevents the inner frame 50 from
10 rotating with respect to the outer frame 100. Indeed, Zhang teaches that rotational motion of the central stage (16) about the x and y axes is imparted entirely by rotating the frame (100) (see, e.g., col. 6, line 62 to col. 7, line 11) in response to voltages applied between the outer frame
15 (100) and conductive regions (166a,b,c,d) of the substrate (12) (see col. 7, lines 5-11).

Independent claims 1 and 23, by contrast, specifically recite that the inner part is rotatably attached to the outer frame. Zhang, for the reasons set forth above,
20 teaches a device in which rotation of the inner frame with respect to the outer frame is impossible. Thus, Zhang does not teach or suggest, and teaches away from, an inner part rotatably attached to the outer frame as recited in claims 1 and 23. As such, Zhang does not teach all the limitations
25 of claims 1 and 23. Therefore, Zhang does not anticipate claims 1 and 23 and these claims define an invention suitable for patent protection.

Furthermore, dependent claims 2-22 and 24-36 respectively depend from claims 1 and 23 and recite additional features
30 therefor. As such, and for the same reasons set forth above with respect to claims 1 and 23, the Applicants submit that Zhang does not anticipate these dependent claims. Therefore, claims 2-22 and 24-36 define an invention suitable for patent protection.

35 USC 103

Claims 37-51 were rejected under U.S.C. §103(a), as being unpatentable over U.S. Patent 6,097,859 to Solgaard et al. (Solgaard) in view of Zhang as applied to claims 1-36. In
5 rejecting the claims, the Examiner states that Solgaard discloses a fiber-optic switch (10) having an array of input optical fibers (14); one or more arrays of mirrors (48); an array of output fibers (24); and microlenses (26, 32). The Examiner states that Solgaard does not appear to expressly
10 disclose the same type of two-dimensional scanner recited by claims 37-51.

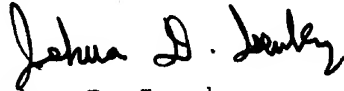
The Applicants respectfully traverse the rejection. Independent claims 37 and 45, specifically recite that the inner part is rotatably attached to the outer frame. Zhang,
15 for the reasons set forth above, does not teach, and teaches away from, such a feature. Furthermore, the Examiner himself admits that Solgaard does not teach the specific scanner recited by claims 37 and 45. Since neither Zhang nor Solgaard teaches or suggests the all the features of
20 claims 37 and 45, no combination thereof recites all these features. As such, a prima facie case of obviousness is not present. Therefore claims 37 and 45 define an invention suitable for patent protection.

Furthermore, dependent claims 38-44 and 46-51 respectively
25 depend from claims 37 and 45 and recite additional features therefor. As such, and for the same reasons set forth above with respect to claims 37 and 45, the Applicants submit that these dependent claims are not obvious over Solgaard in view of Zhang. Therefore, claims 38-44 and 46-51 define an
30 invention suitable for patent protection.

CONCLUSION

In view of the above amendments and remarks, the Applicants submit that all pending claims are allowable over the prior art of record. Therefore, the Applicants respectfully
5 request that the Examiner reconsider the application and issue a Notice of Allowance in the next Office Action.

Respectfully submitted,



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